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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,066

06/22/2006

Kanao Kayamoto

3209-120

8987

6449

7590

03/09/2009

ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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SUITE 800

WASHINGTON, DC 20005

EXAMINER

BURNEY, RACHEL L

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

03/09/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/584,066	Applicant(s) KAYAMOTO ET AL.	
	Examiner Rachel L. Burney	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US PGPub 2003/0186156, Kayamoto et al. Kayamoto discloses a resin-coated carrier for an electrophotographic developer, when mixed with a toner (PP 0065), which is spherical (PP 0038) and comprises a ferrite core having a volume average particle size of 20-45 mm, and a magnetization of 65-80 emu/g and a surface smoothness uniformity of 75% or higher (PP 0017). Kayamoto does not disclose the average sphericity, sphericity standard deviation, apparent density, or the scattered material magnetization of the coated

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carrier, however Kayamoto does teach the magnetization is within a range to promote desired scattering (PP 0026) and the particles have uniform sphericity (PP 0040).

Because the resin-coated carrier is made in a similar fashion with similar chemicals which are used in a similar embodiment, it would be reasonable to conclude that the unmeasured properties of the carrier of Kayamoto would have similar properties as that of the instant application.

4. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0186156, Kayamoto et al. as applied to claim 1 above, and further in view of US PGPub 2005/0214671, Mizutani et al.

With respect to claims 4, 5, and 7, Kayamoto discloses a process for producing a resin-coated carrier comprising mixing ferrite raw material and other raw materials, grinding the mixture to prepare a slurry (PP 0057), granulating the slurry, pre-sintering, and sintering the particles 700°C then at 1300°C for 5 hours (PP 0058), and then coating the particles with a resin (PP 0061), however Kayamoto fails to teach the sintering in a rotary kiln. Mizutani discloses a process of forming a carrier comprising ferrite core particles which are formed by sintering in a rotary kiln at a temperature from 1100-1500°C in order to produce a spherical core with a smooth surface (PP 0066). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the rotary kiln of Mizutani to form the spherical ferrite cores of Kayamoto to control the sphericity and smooth surface properties.

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With respect to claims 6 and 8, Kayamoto and Mizutani discloses the processes of claims 4 and 7 as discussed above, but fail to teach the time of the pre-sintering, retort rotation speed, retort inclination speed, inlet and outlet hammering frequencies. It would have been obvious to one of ordinary skill in the art at the time of the invention to use parameters which give the desired size and surface uniformness as discussed above, which would have reasonably fallen within the desired ranges.

Response to Arguments

5. Applicant's arguments filed 10/06/2008 have been fully considered but they are not persuasive. Applicant argues that the process of Kayamoto will not make a spherical particle having a surface uniformity of 90% or more. Applicant asserts that comparative examples 1-3 show that the process of Kayamoto is limited to 70-80% surface uniformity. The examiner respectfully disagrees. Kayamoto discloses a spherical ferrite core, as discussed above, and example 3 shows that the surface uniformity may be at least 90% (PP 0119).

6. Applicant's arguments, see pages 5-7, filed 10/06/2008, with respect to the rejection(s) of claim(s) 4-8 under Kayamoto have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as discussed above.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Burney whose telephone number is (571)272-9802. The examiner can normally be reached on Mon-Thurs: 7:30-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/
Supervisory Patent Examiner, Art Unit 1795

RLB